

REMARKS

Claims 1 and 5-7 are pending. By this Amendment, claims 1, 5 and 6 are amended, claims 2-4 are cancelled and claim 7 is added. In particular, the features of claims 2 and 4 have been incorporated into claim 1, and claim 7 is added to include the features of claims 1 and 2 and additional changes.

Claims 1-6 were rejected under 35 U.S.C. §102(b) over Goodman et al. (Goodman), U.S. Patent No. 2,776,673. The rejection is respectfully traversed.

Goodman fails to disclose a thrust control valve with a plug that has an upstream pressure-receiving part and a downstream pressure-receiving part, the downstream pressure-receiving part having a downstream pressure-receiving surface with a first inclined surface that is inclined so as to approach a downstream inner surface along an axial direction away from the upstream pressure-receiving part and a second inclined surface which is inclined so as to separate from the downstream inner surface along the axial direction away from the upstream pressure-receiving part, as recited in claim 1.

Goodman discloses a flow restrictor with a plunger rod 30 that is reduced in diameter at 35 (Fig. 1 and col. 2, lines 23-25). The reduction is progressively effected from each of a pair of shoulders 32, 32' toward the midpoint at section 35 such that the surface at section 35 is defined by arcs of two equal and relatively large circles (col. 2, lines 25-32).

Goodman thus fails to disclose a downstream pressure-receiving surface with a first inclined surface and a second inclined surface as recited in claim 1. Goodman instead uses a single curved surface (downstream arc) for the downstream pressure-receiving part of the plunger rod 30. By using two inclined surfaces for the downstream pressure-receiving surface, a force that acts on a plug can easily and highly accurately be adjusted by individually adjusting the respective axial lengths, radial lengths and shapes of the inclined pressure-receiving surfaces (page 14, lines 4-15 of Applicants' specification). Consequently, the thrust

control response characteristic of a thrust control valve can easily and highly accurately be optimized according to a desired thrust. Goodman cannot achieve this advantage using a single curved surface.


In view of the foregoing, Goodman fails to disclose all of the features recited in claim 1 and the additional features recited in claims 5 and 6. It is respectfully requested that the rejection be withdrawn.

Goodman also fails to disclose all of the features recited in claim 7. Claim 7 corresponds to the proposed amendment presented by the Examiner prior to the outstanding Office Action. For example, Goodman fails to disclose a plug with a nozzle that includes converging and diverging surfaces as recited in claim 7.

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of the claims are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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Attachment:
Petition for Extension of Time

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